DOCUMENT RESUME

ED 347 640 EA 024 081

AUTHOR Keith, Timothy Z.; And Others
TITLE Effects of Parental Involvement on Eighth Grade Achievement: LISREL Analysis of NELS-88 Data.
PUB DATE Apr 92
NOTE 30p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, CA, April 20-24, 1992).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Academic Achievement; Family Environment; *Family School Relationship; Grade 8; *Junior High Schools; Parent Aspiration; Parent Background; *Parent Influence; *Parent Participation; Parent Role; *Parent School Relationship

ABSTRACT

Findings of a study that determined the influence of parental involvement on eighth-grade students' achievement are presented in this paper, which examined the following specific components of parent involvement: aspirations, home structure, discipline, and school activity participation. Data on 21,835 students and their parents were derived from the National Education Longitudinal Study of 1988 (NELS). Latent variable structural equations analysis (LISREL) was used to determine the effects of parental involvement on student achievement, to compare the effects of various components of parental involvement, and to compare the effects of students' versus parents' perceptions of involvement. Findings indicate that parental involvement in their children's homework had a substantial effect on achievement test scores and that the extent of television viewing had no effect. Parental educational aspirations had a positive effect on overall achievement, and family structure had a small negative effect. Students' perceptions of parental involvement were more important than were parents' reports of participation. Eleven figures are included. (8 references) (LMI)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED347640

Effects of Parental Involvement on Eighth Grade Achievement: LISREL analysis of NELS-88 Data

Timothy Z. Keith

Patricia B. Keith

Patricia G. Bickley

Kusum Singh

Virginia Polytechnic Institute & State University

Poster presented at the annual meeting of the American Educational Research Association, San Francisco, April, 1992. Correspondence should be sent to Timothy Z. Keith, Administrative & Educational Services, Virginia Tech, Blacksburg, VA 24061-0302, Bitnet ID: TZKEITH @ VTVM1.

Running Head: PARENTAL INVOLVEMENT EFFECTS

BEST COPY AVAILABLE

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

T. Keith

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

EA 024 081

ABSTRACT

Parental involvement is a hot topic in education, and the press and policy makers are pushing parental involvement as the latest educational panacea. In fact, research is far from consistent in supporting parental involvement effects, and numerous questions remain. Here we present research concerning the effects of parental involvement on achievement for a national sample of eighth graders and their parents.

The research was conducted on over 21,000 students and their parents from the National Education Longitudinal Study. LISREL was used to determine the effects of parental involvement on achievement, to compare the effects of various components of parental involvement, and to compare the effects of students' versus parents' perceptions of involvement.

This research begins to answer several unanswered questions concerning the effects of parental involvement on student learning. The findings to be presented thus have implications for group programs and individual interventions designed to increase parental involvement.

Effects of Parental Involvement on Eighth Grade Achievement: Analysis of NELS-88 Data

Does parental involvement improve students' academic performance? American education has rediscovered parental involvement, and the popular press, policy makers, and school administrators have pounced upon parental involvement as the latest panacea for improving school learning. For example, in a recent article in The School Administrator, First Lady Barbara Bush proclaimed that schools need to "Bring parents back to the fold" (1991, p. 48).

Research evidence does indeed suggest that parental involvement may improve students' learning (Epstein, 1984, 1991), but there are many inconsistencies in the research findings (Keith, 1991). A recent review of parental involvement research concluded that the effects of parental involvement may vary with the age of the students studied, with involvement being more effective for elementary than for high school youth. Little research has been conducted with middle school youth. Parental involvement research has used a variety of definitions of parental involvement, concentrating variously on parental aspirations, discussions of schooling and school work, participation in school activities, or a home structure that is oriented towards learning; the effects of parental involvement may also vary depending on the definition used (for a comparison of definitions, see Seginer, 1983). Parental involvement effects may also vary depending on the learning criterion used, with grades more easily affected than test scores (Fehrmann, Keith, & Reimers, 1987).

Finally, it is simply unknown whether actual involvement or the student's perceptions of involvement are more important for learning (for a complete review, see Keith, 1991).

The primary objective of this study was to determine the extent of the influence of parental involvement on eighth grade students' achievement. We also sought to determine the relative importance of more specific components of parental involvement--aspirations, home structure, discussion, or participation in school activities--on learning, and whether parental or student perceptions of involvement are more important for learning. Finally, we examined two possible mechanisms by which parental involvement might affect achievement: by increasing the amount of time students spend on homework and by decreasing the amount of time students spend watching week-day television.

Methods/Techniques

Latent variable structural equations analysis (LISREL) was used to determine the extent of the influence of general parental involvement on eighth grade students' academic achievement, as measured by a series of standardized tests in reading, mathematics, science, and social studies; relevant background influences (ethnicity and family background, gender, and previous achievement) were controlled. Homework and TV time were added to the model as possible intervening variables. A second series of analyses examined the effects of four more specific aspects (latent variables) of parental involvement on achievement: parental educational aspirations, the structure of the home (e.g., family rules, monitoring of homework), parent and student discussions of school activities, and

parental participation in school activities. The third series of analyses examined and compared the effects on achievement of parent reports of involvement in these four areas with student perceptions of the same types of involvement. For each series both general achievement and each specific achievement area were examined. The models were based on parent involvement theory and previous research (Bloom, 1984; Epstein, 1991; Keith, 1991; Reynolds & Walberg, 1990; Seginer, 1983).

Data Source

Data were derived from the first wave of the National Education Longitudinal Study of 1988 (NELS). NELS includes data on more than 24,000 eighth graders along with their parents, teachers, and school administrators. This research included information from 21,835 students and their parents. For all analyses individual questionnaire items were grouped into composites, which were used as measured indicators of the latent variables.

Results and Conclusions

Results suggest that general parental involvement has substantial effect on eighth grader's achievement test scores. This effect seems to be accomplished primarily through homework; students whose parents are more involved complete more homework, and this homework, in turn, increases their achievement. Contrary to expectation, TV viewing had no effect on eighth grade achievement.

Parental educational aspirations had a positive effect on overall achievement, but when other variables in the model were statistically controlled, family structure had a small negative effect. Neither parent-

child communication about school nor parental participation in school activities had a meaningful effect on achievement. These preliminary findings will need to be analyzed further. As expected, student perceptions of parental involvement were more important than were parent reports of involvement. Indeed, parental perceptions of involvement had no effect on achievement, except through student perceptions.

Educational and Scientific Importance of the Study

Scientifically, the results reported here are extremely generalizable, as they are based on a recent, large, representative sample of eighth grade students and their parents. Both parent and student responses were used, and the technique used for analysis was very appropriate for the analysis of such nonexperimental data. Educationally, these results begin to provide answers to several unanswered questions concerning the nature and extent of the influence of parental involvement on academic achievement. The findings are important because parental involvement is currently in vogue in education, and is being advocated as a method of improving U.S. schools. The results suggest that parental involvement does affect achievement. Students need to know that their parents are involved, as well, since student perceptions of involvement appear more important for achievement than parental perceptions. And while the effects of involvement are not consistent across definitions, they are important, especially since they come from a variable that is manipulable by parents, by schools, and perhaps by the students themselves.

References

Bloom, B. S. (1984). The search for methods of group instruction as effective as one-to-one tutoring. Educational Leadership, 41(8), 4-17.

Bush, B. (1991, February). Bring parents back to the fold. The School Administrator, 48.

Epstein, J. L. (1984, April). Effects of teacher practices of parental involvement for change in student achievement in reading and math. Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

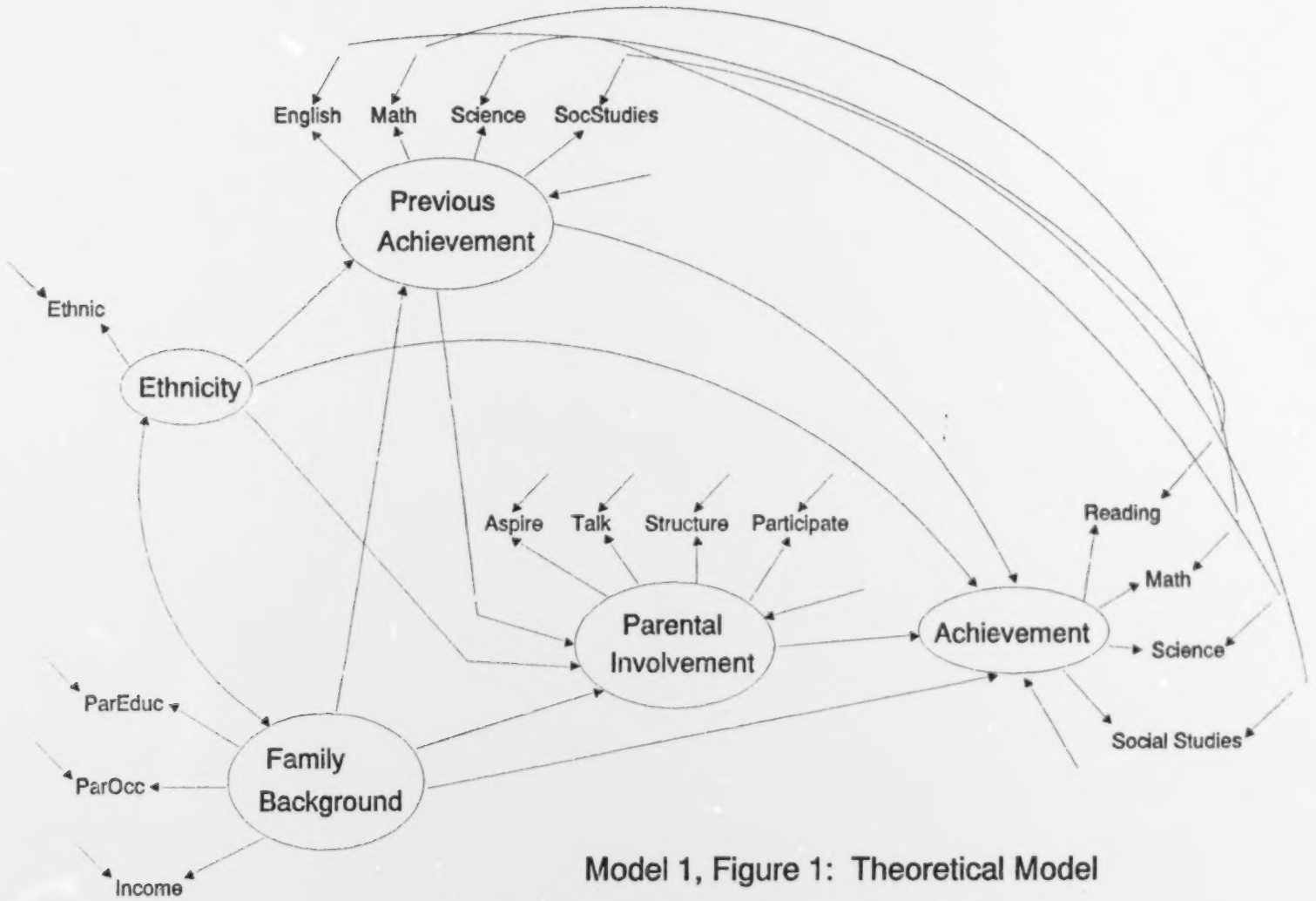
Epstein, J. L. (1991). Effects on student achievement of teachers' practices of parent involvement. In S. Silvern (Ed.), Advances in reading/language research: Literacy though family, community and school interaction, 5, 261-276. Greenwich, CT: JAI Press.

Fehrmann, P. G., Keith, T. Z., & Reimers, T. M. (1987). Home influence on school learning: Direct and indirect effects of parental involvement on high school grades. Journal of Educational Research, 80, 330-337.

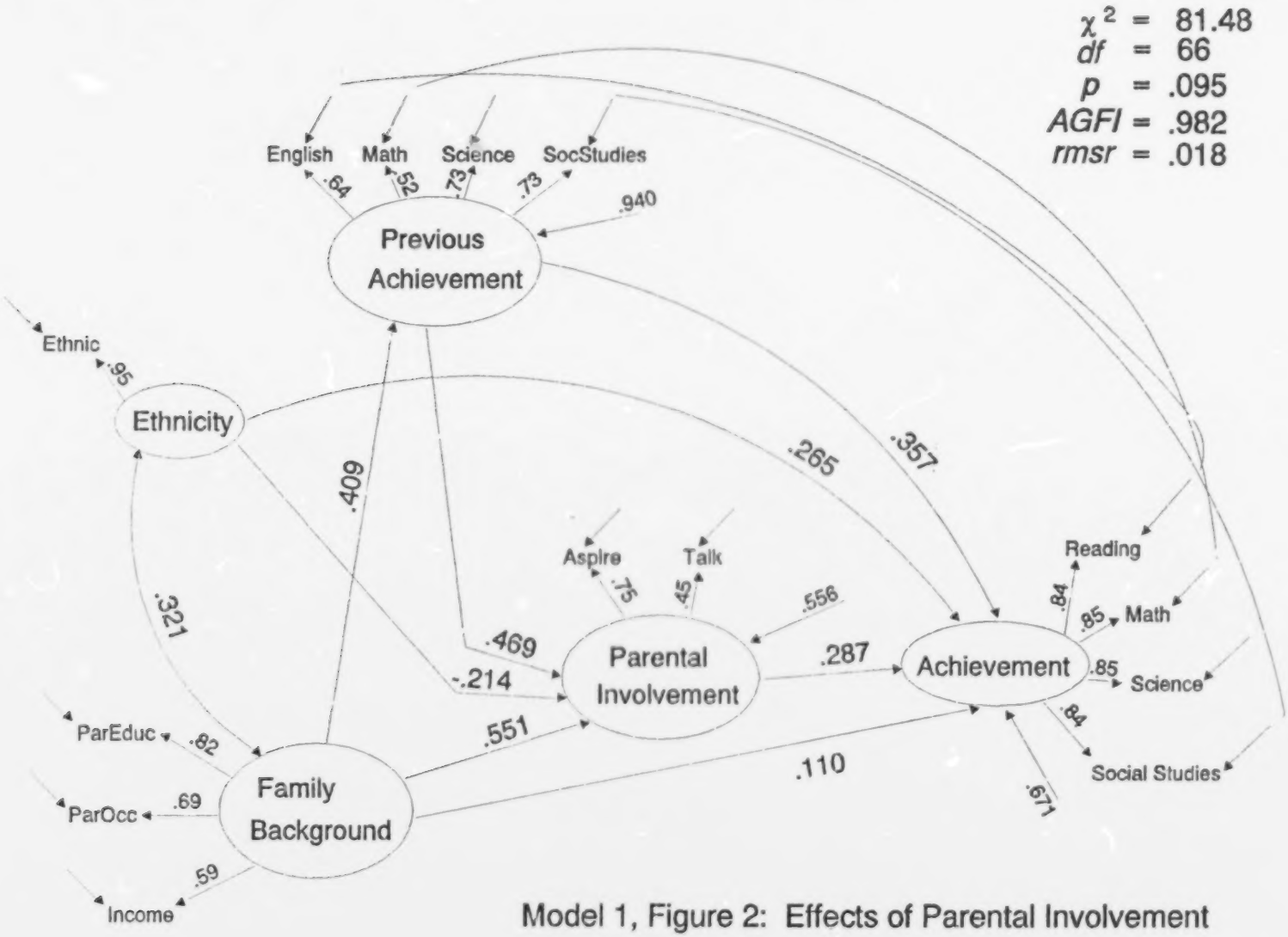
Keith, T. Z. (1991). Parental involvement and achievement in high schools. In S. Silvern (Ed.), Advances in reading/language research: Literacy though family, community and school interaction, 5, 121-145. Greenwich, CT: JAI Press.

Reynolds, A. J. & Walberg, H. J., (1990, February). A structural model of educational productivity, Paper presented at the Advisory Council on Educational Statistics, Department of Education, OERI, Washington, DC.

Seginer, R. (1983). Parents' educational expectations and children's academic achievement: A literature review. Merrill-Palmer Quarterly, 29, 1-21.

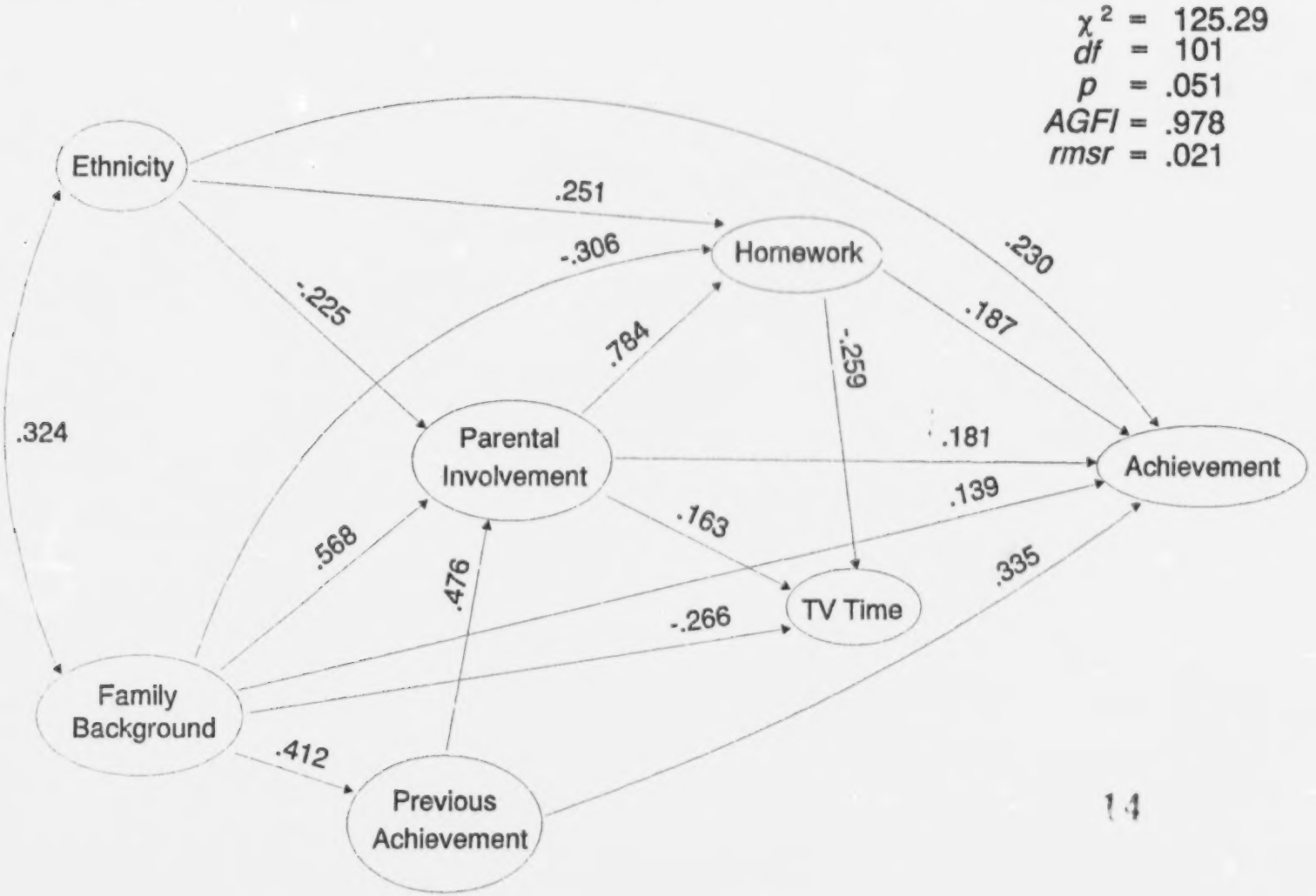


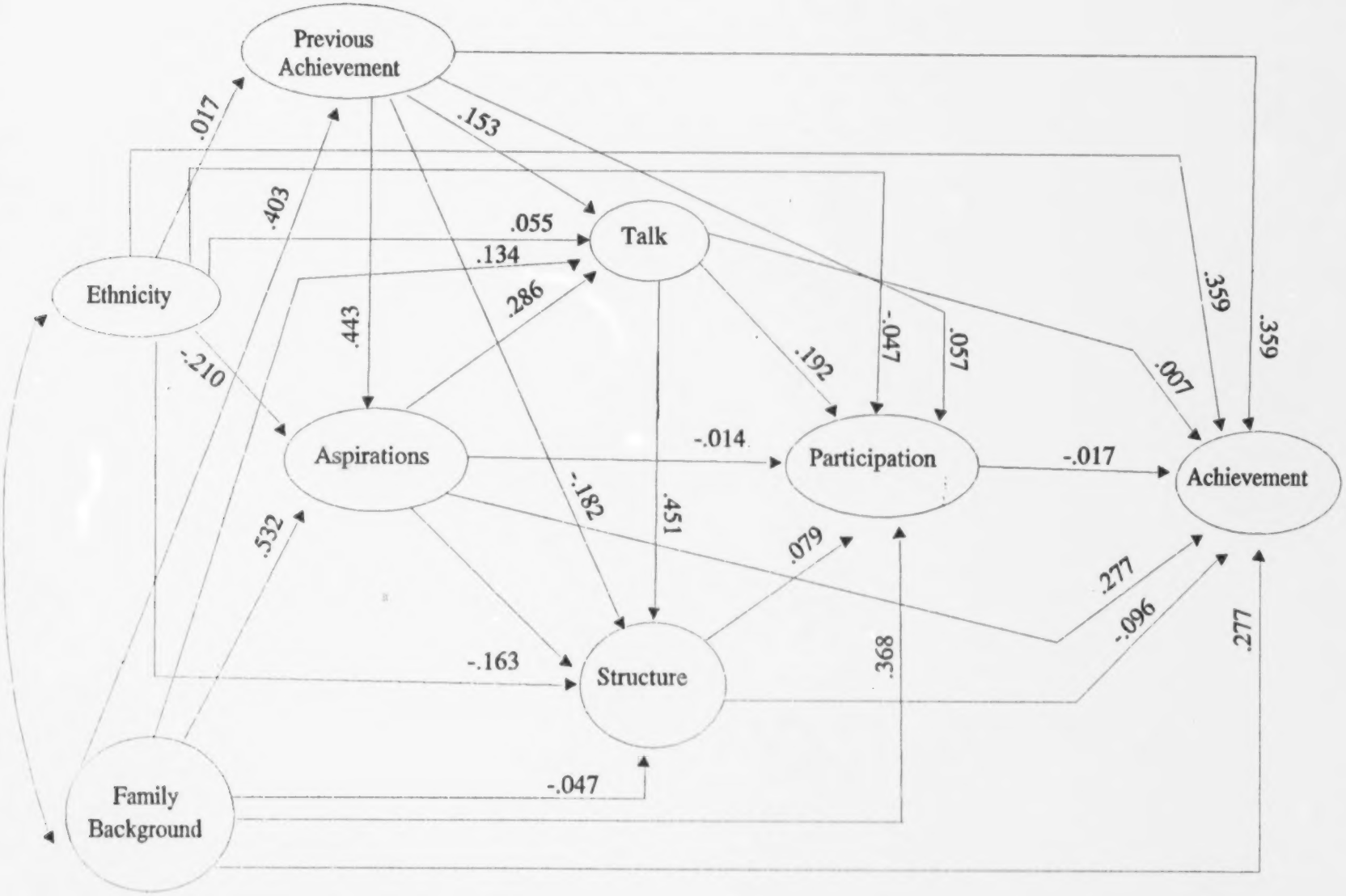
Model 1, Figure 1: Theoretical Model



Model 1, Figure 2: Effects of Parental Involvement

Model 1, Figure 3: Indirect Effects of PI through Homework

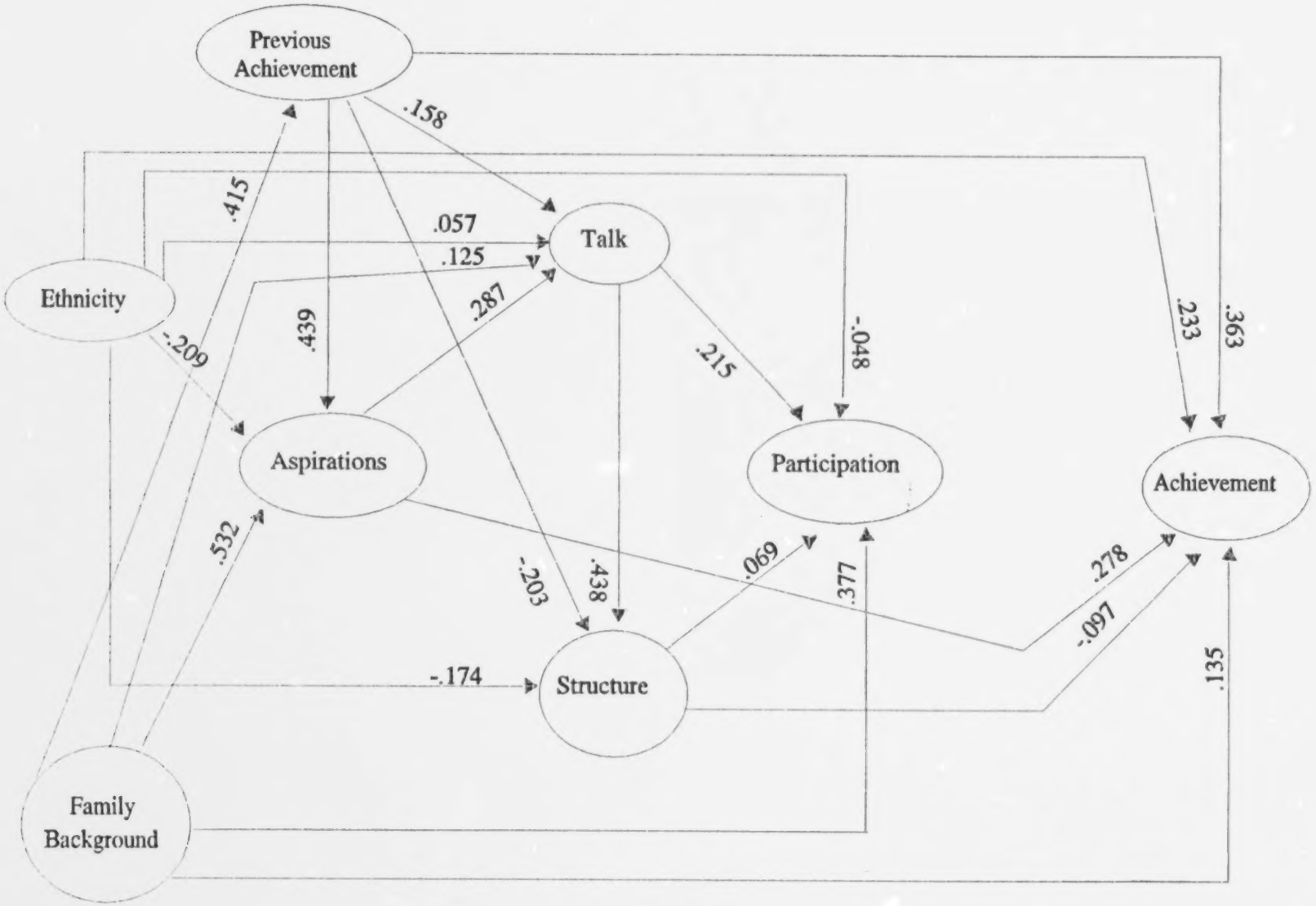




$\chi 2$= 158.41 AGFI = .976

p = .124 rmsr = .027

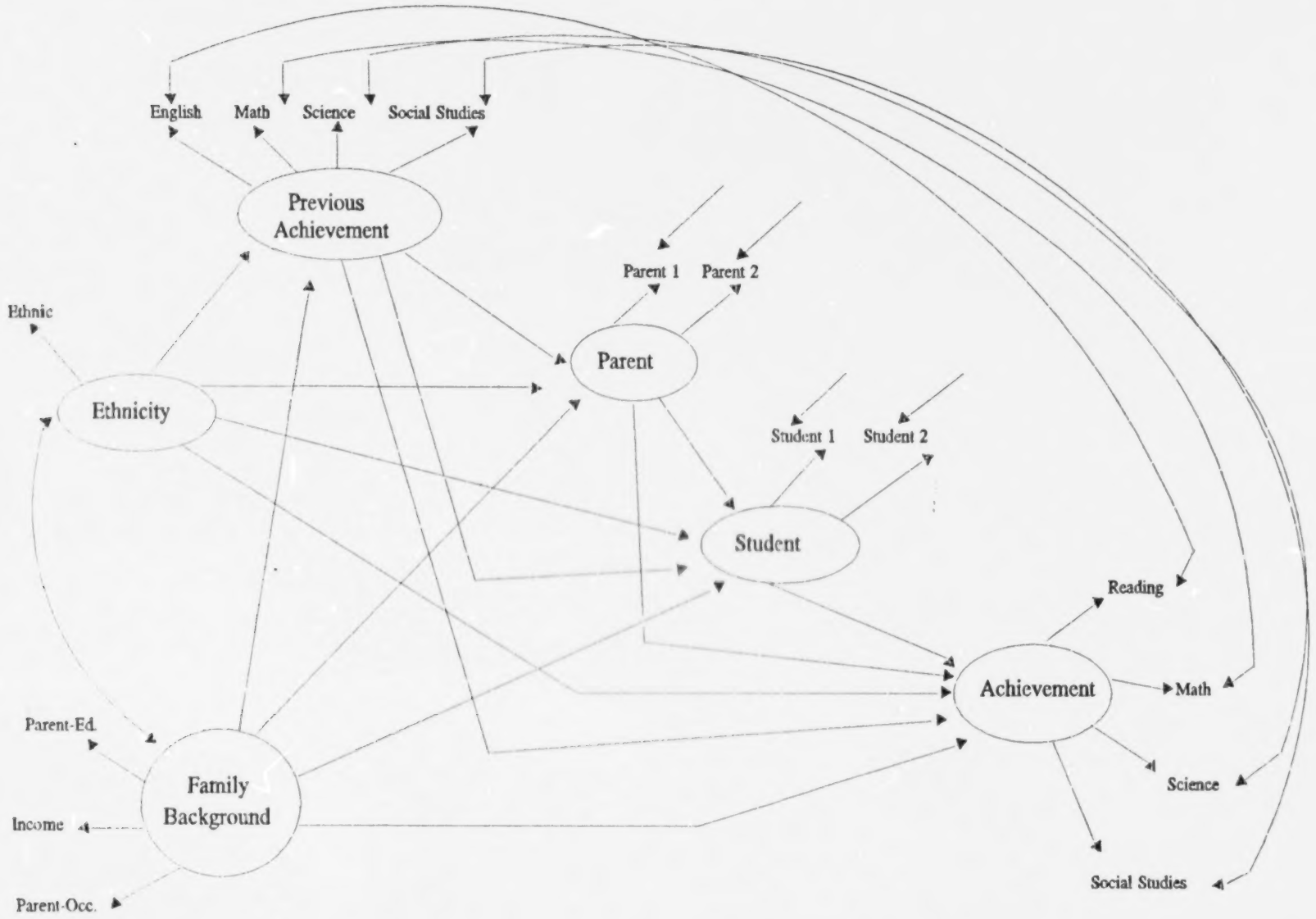
Model 2, Figure 1: Initial Model



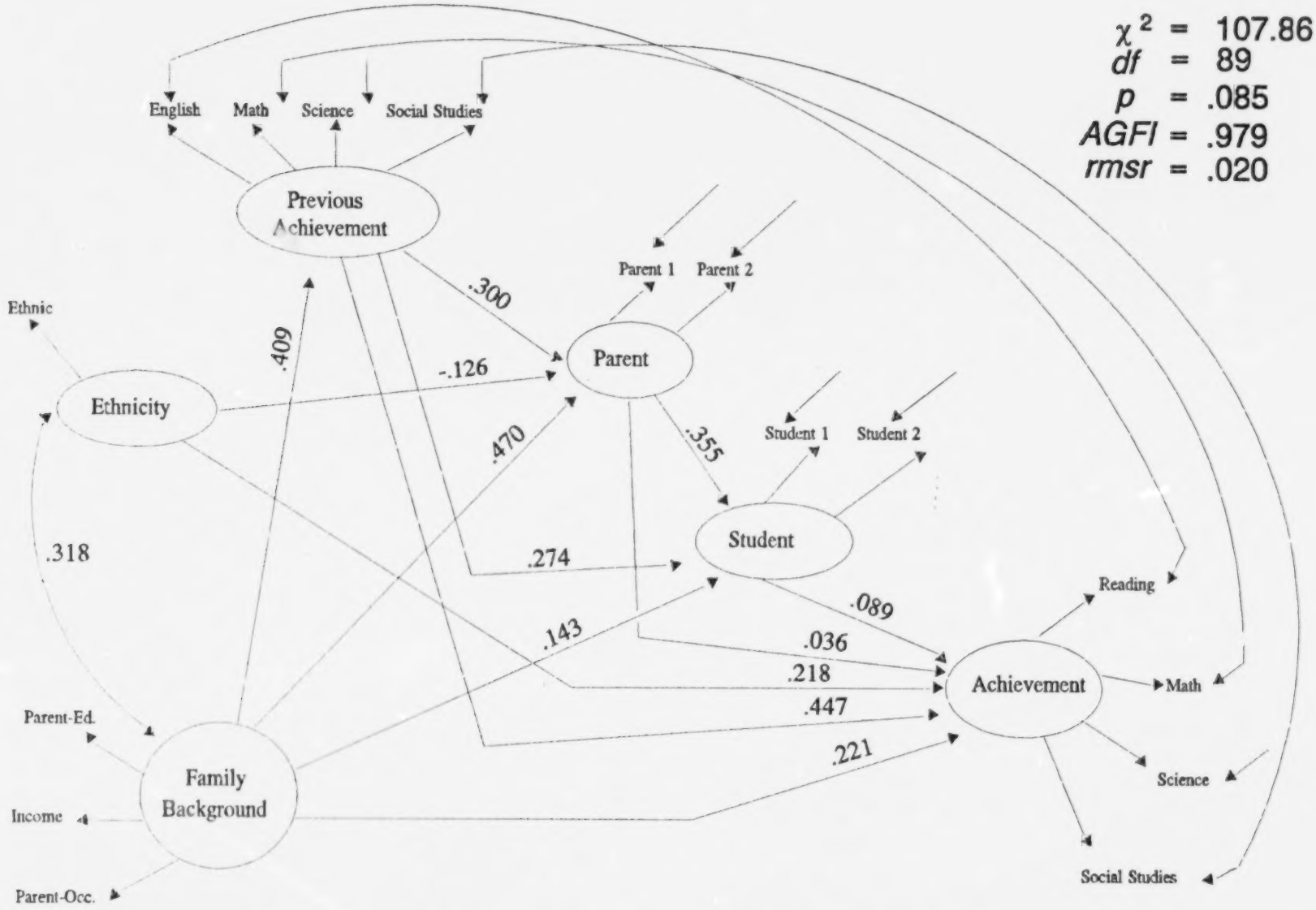
$\chi 2$ = 162.72, df = 147, p = .178

AGFI = .977 rmsr = .026

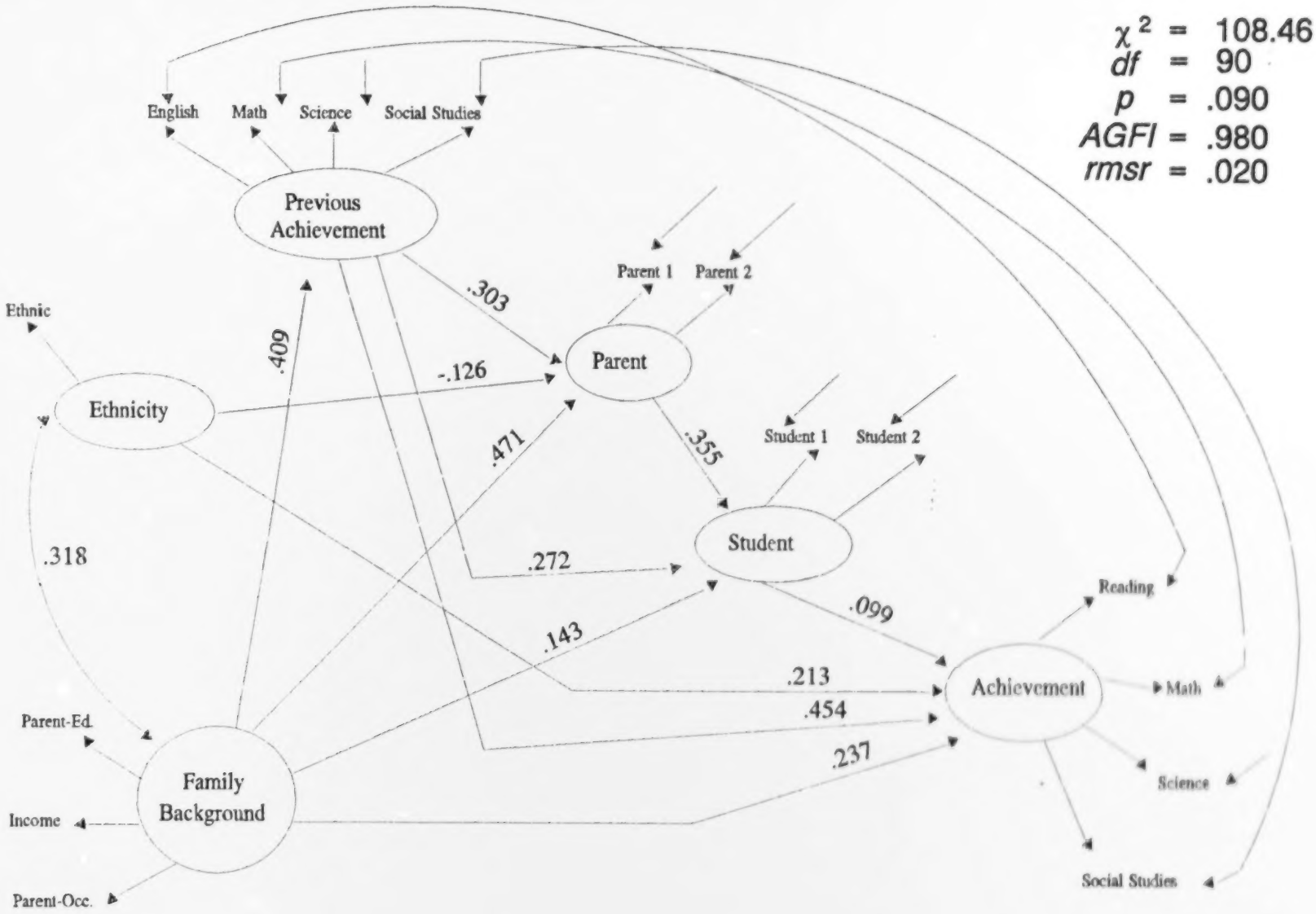
Model 2, Figure 2: Reduced Model



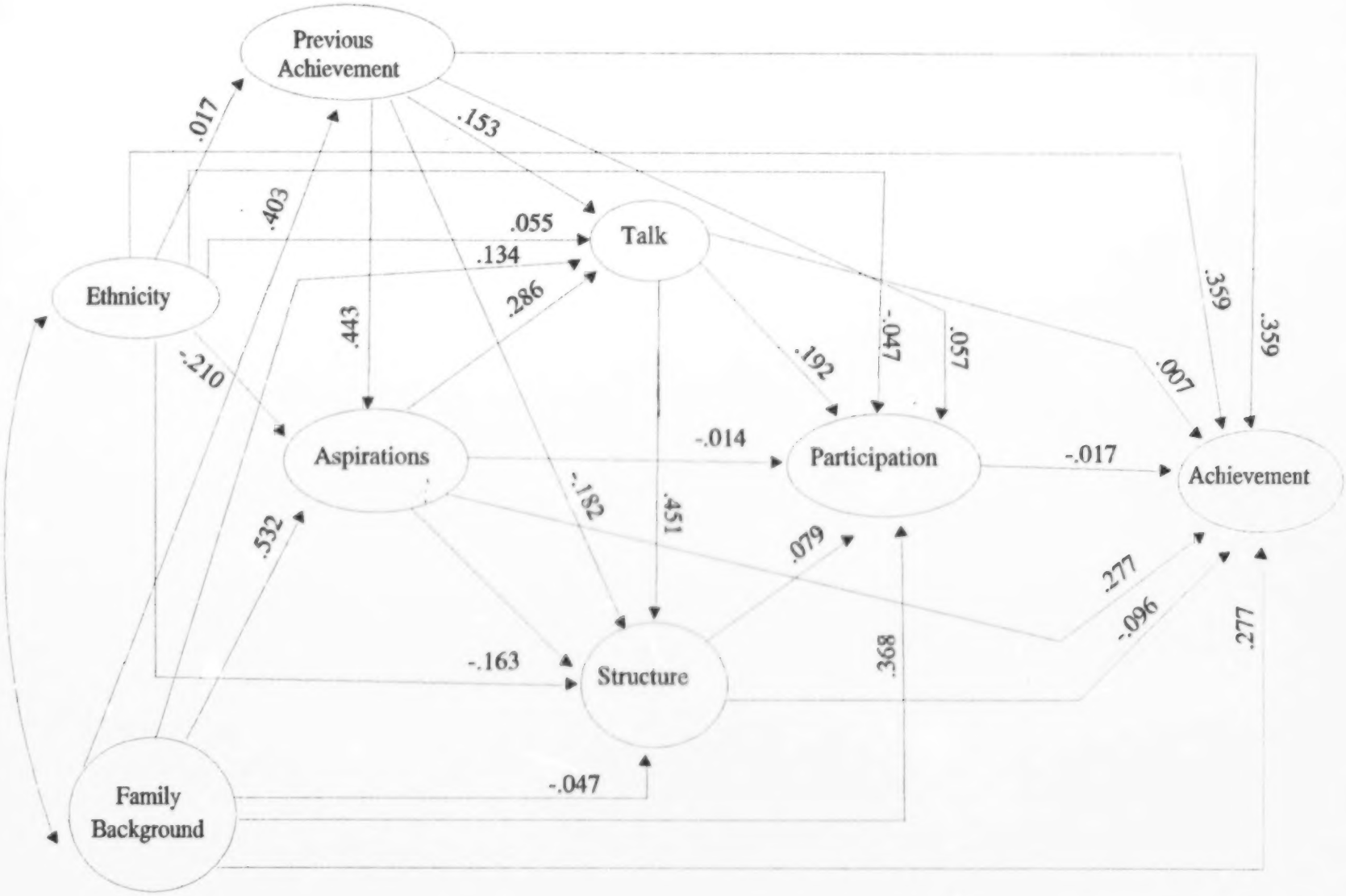
Model 3, Figure 1: Initial Model



Model 3, Figure 2: Reduced Model



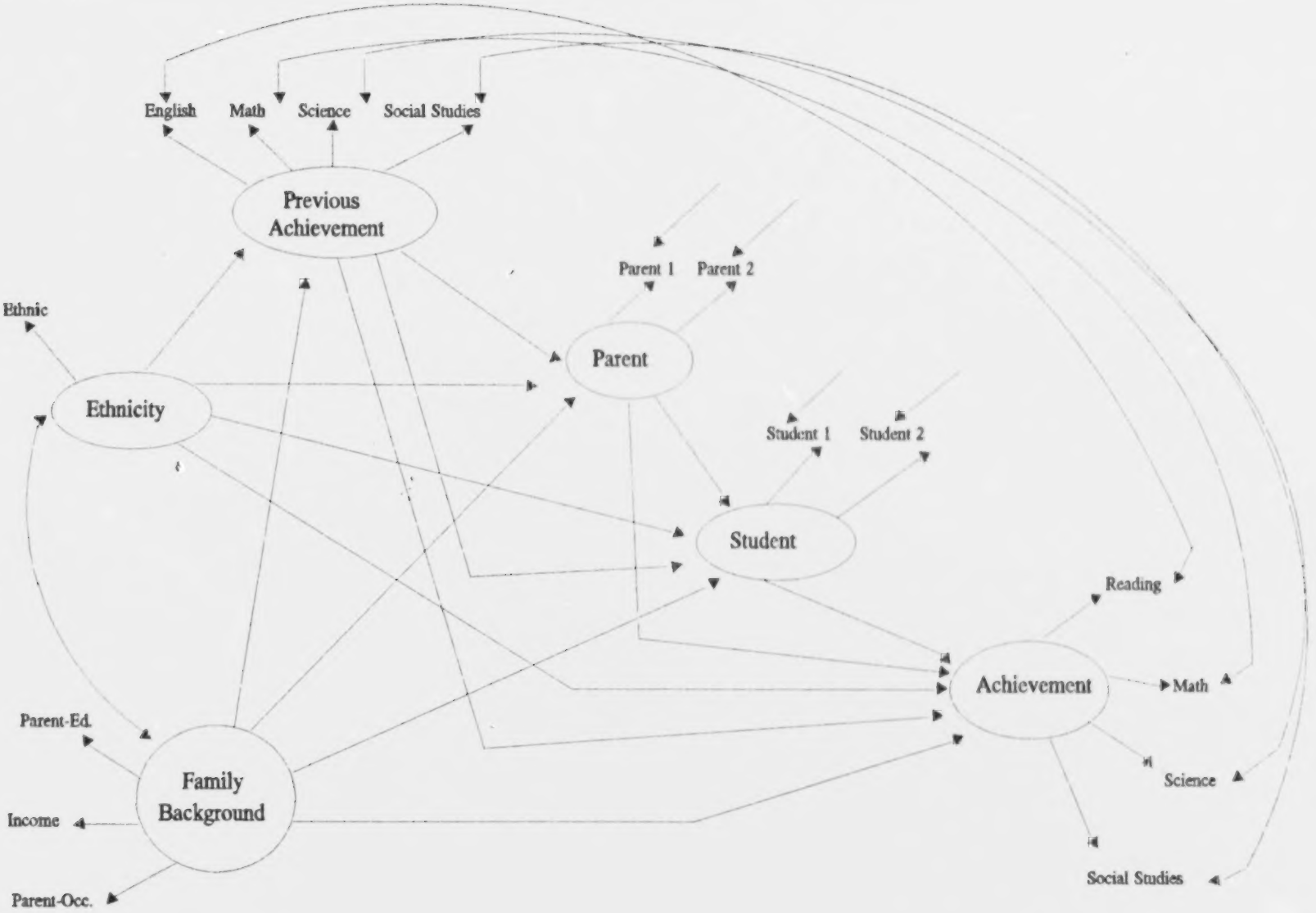
Model 3, Figure 3: No Direct PI Model



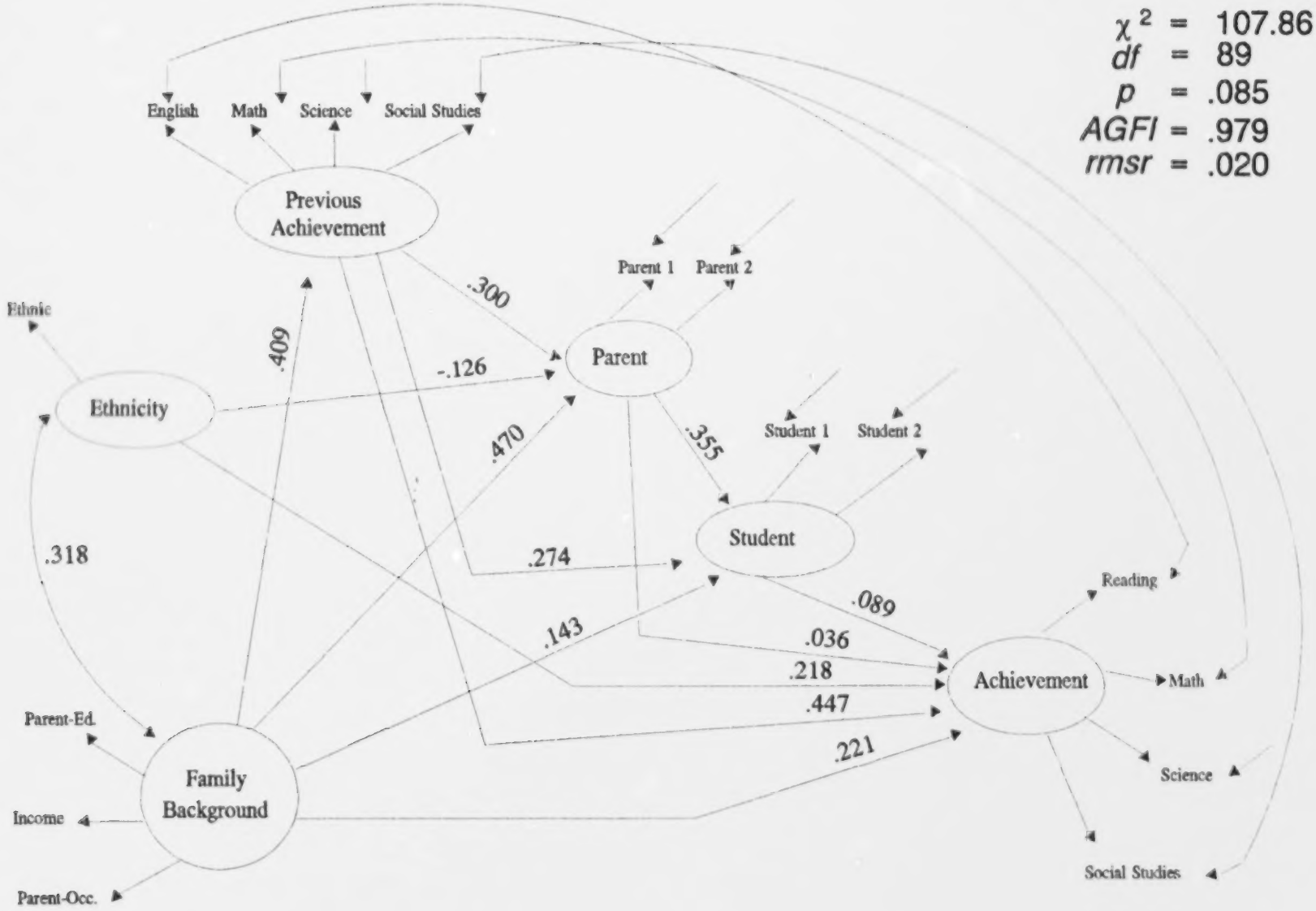
χ^2= 158.41 AGFI = .976

p = .124 rmsr = .027

Model 2, Figure 1: Initial Model



Model 3, Figure 1: Initial Model



Model 3, Figure 2: Reduced Model